

## Industrial Energy Efficiency and Combined Heat and Power Working Group

## Overview of the SEE Action Industrial Energy Efficiency and Combined Heat and Power Working Group

The State and Local Energy Efficiency Action Network (SEE Action) is a state and local effort facilitated by the federal government that helps states, utilities, and other local stakeholders take energy efficiency to scale and achieve all cost-effective energy efficiency by 2020. Within SEE Action, eight working groups are charged with different responsibilities. The Industrial Energy Efficiency and Combined Heat and Power (IEE/CHP) Working Group has been established to address the significant energy efficiency and CHP opportunities in the U.S. industrial sector. This sector encompasses all facilities and equipment used for producing, processing, or assembling goods. The long-term goals of the IEE/CHP Working Group include:

- 1. Achieving 2.5% average annual reduction in industrial energy intensity by 2020
- 2. Installing 40 gigawatts (GW) of new, cost-effective CHP by 2020.

#### **Working Group Structure**

The 20-member working group is led by two volunteer co-chairs: Todd Currier, the Energy Program Division Manager for the Washington State University Extension Office, and Greg White, a commissioner with the Michigan Public Service Commission. The IEE/CHP Working Group is supported by four federal staff leads, two from the U.S. Department of Energy and two from the U.S. Environmental Protection Agency. Working group members represent diverse stakeholders, including state policymakers, energy service companies, utilities, and nongovernmental organizations, among others.

#### **Industrial Sector Energy Efficiency Impact**

According to the U.S. Energy Information Administration (EIA), the U.S. industrial sector will consume 41.6 quadrillion British thermal units (quads) of primary energy in 2020. Moreover, a recent report by McKinsey and Company suggests that 13.4 quads of savings will exist by 2020. Meeting the IEE/CHP Working Group's goals would achieve energy savings of 10.4 quads by 2020, effectively capturing 78% of the potential energy efficiency in the industrial sector, including new CHP installations.

#### **Working Group Strategy**

The IEE/CHP Working Group aims to bolster the use of existing federal, state, utility, and nonprofit energy efficiency resources and activities, as well as initiate new action among key stakeholders to support energy efficiency and CHP implementation within the U.S. industrial sector. The working group will provide state policymakers, industrial customers, and other stakeholders with the information necessary to promote and adopt model state and utility industrial energy efficiency and CHP programs.

The working group will meet its aggressive goals through a variety of research, policy development, program enhancement, and stakeholder engagement activities. These activities are pursued via four key pathways: (1) driving demand for industrial energy efficiency and CHP, (2) building the workforce, (3) promoting efficient operations and investment, and (4) moving the market—as shown in Figure 1 below and outlined in greater detail in the IEE/CHP Working Group's Blueprint.<sup>4</sup>

#### **Key Points**

- The IEE/CHP Working Group targets energy efficiency and CHP opportunities in the U.S. industrial sector.
- Working group goals are achieved through research, policy development and adoption, program enhancement, and stakeholder outreach.
- The 20-member working group is chaired by state policymakers and facilitated by the federal government.
- Working group members represent state policymakers, energy service companies, utilities, and non-governmental organizations.

#### **About SEE Action**

The State and Local Energy
Efficiency Action Network (SEE
Action) is a state and local effort
facilitated by the federal
government that helps states,
utilities, and other local
stakeholders take energy efficiency
to scale and achieve all costeffective energy efficiency by 2020.

#### About the Working Group

The working group is comprised of representatives from a diverse set of stakeholders; its members are provided at www.seeaction.energy.gov.

Goals

- 1) Achieve an average 2.5% reduction in industrial energy intensity annually through 2020
- 2) Install 40 GW of new, cost-effective CHP by 2020

# Pathways

### Drive Demand for IEE & CHP

Encourage the adoption and delivery of IEE and CHP programs that meet the needs of industry. Promote policies that support IEE and CHP at the state, local, and national level.

#### **Build the Workforce**

Develop training programs to build skills that are in short supply in the industrial workforce.
Identify protocols to help standardize certification for energy efficiency professionals.

#### Move the Market

Harmonize state interconnection standards to facilitate CHP adoption. Promote emerging IEE and CHP technologies. Reform IEE and CHP financing practices to encourage new projects.

## Promote Efficient Operations & Investment

Promote policies and programs that encourage innovative financing of IEE and CHP projects. Improve availability of IEE and CHP information and tools for industry.

Figure 1. The IEE/CHP Working Group goals are supported by activities pursued along four key pathways.

#### **Working Group Activities**

The IEE/CHP Working Group serves to advance energy efficiency in the industrial sector by supporting actions to overcome the unique market barriers faced by the sector. The primary charge of the working group is to:

- Identify industrial energy efficiency and CHP programs and policies recognized as model approaches
- Engage with stakeholders and interested parties who can take action to replicate model approaches, leveraging working group member resources
- Facilitate information exchanges across stakeholder groups to design, implement, and evaluate model programs, policies, and practices.

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#### References

- <sup>1</sup> EIA estimate is a "business as usual" scenario, using gross domestic product (GDP) growth estimates with fixed energy intensity. Total industrial sector energy consumption includes refining-related efforts.
- <sup>2</sup> McKinsey Global Energy and Materials. *Unlocking Energy Efficiency in the U.S. Economy*. July 2009.

www.mckinsey.com/Client Service/

Electric Power and Natural Gas/Latest thinking/ Unlocking energy efficiency in the US economy.

The McKinsey non-transportation industrial estimates were used to calculate the potential for the full industrial sector.

- <sup>3</sup> 2020 efficiency potential is based on an estimated 25.2% growth in GDP by 2020 (Annual Energy Outlook 2008) and a fixed industrial energy intensity through 2020.
- <sup>4</sup> www.seeaction.energy.gov/pdfs/ industrial efficiency chp blueprint.pdf.

#### Disclaimer:

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